

DECORATIVE EYEGLASS LENS, METHOD AND RELATED EYEWEAR

PRIORITY

Priority is claimed to Provisional Application, Serial No. 60/414,678, filed on September 30, 2002, which is incorporated here by reference.

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates to decorative eyeglass lenses and a method for making those lenses, and eyewear using these lenses.

2. Description of the Prior Art

Impact resistant eyeglass lenses are typically made entirely of transparent plastic materials, and are employed in the production and manufacture of eyeglass lenses so that the vision of the user of such lens is not distorted, interrupted or reduced when the lens is worn. Further, impact resistant lenses are used for safety reasons; impact resistant eyeglass lenses are unlikely to crack, break or shatter around the user's eye.

Glitter is made usually of opaque materials and, sometimes, opaque reflective materials. In a typical eyeglass lens, the composition remains constant throughout the lens. Therefore, opaque and opaque reflective materials are lacking.

Glitter has been used to add style and flair among other things to clothing, toys, glue, ink, plastic and acrylic containers such as pencil boxes, and consumer goods such as toothbrushes, watch faces and hairbrushes.

SUMMARY OF THE INVENTION

5 The present invention is directed to an eyeglass lens design which can be used to provide eye protection and, at the same time, add decorative and unique styling to the user's eyewear. The present invention provides eyeglass wearers with a new, useful, aesthetically pleasing and distinctive eyeglass lens that retains desirable qualities of entirely transparent eyeglass lenses.

10 It is an object of the present invention to provide eyeglass wearers with an aesthetic eyeglass lens that creates a single-colored or multicolored flair when worn. In a preferred embodiment of the present invention, this objective is achieved in an eyeglass lens and eyewear having glitter dispersed throughout the lens or dispersed in patterns in or across the lens, and/or disposed in a
15 transparent panel extending along the sides of the eyewear.

 One aspect of the invention relates to an eyeglass lens with glitter imparted throughout or along that lens. Preferably, the glitter is dispersed in or across the lens in a manner which will not cause the wearer to experience significant distortion, reduction or interruption in vision; however, it is within

the scope of this invention to introduce glitter into the lens in a quantity which may impair sight, if the eyewear is only used when safety is not a concern.

Another aspect of the present invention relates to a method of manufacturing the glittered eyeglass lens and then installing the lens into frames.

In one embodiment of the present invention, the glittered eyeglass lens has a prescribed amount of glitter dispersed throughout the lens. The glitter appears in a random pattern along all surfaces of the lens, as well as the interior of the lens. In another embodiment, glitter is dispensed only along the front or back surface of the lens. This arrangement yields a lens that appears to have similar properties to that in which the glitter is dispersed throughout the lens. In this embodiment, however, the manufacturer controls the final arrangement of the glitter along the surface of the lens.

In yet another embodiment, the lens contains glitter which is dispersed only in or along a peripheral portion of the lens. The lens formed with glitter only appearing around the periphery of the lens leaves the user's visual perception substantially undistorted. The range of glitter in this embodiment may be defined as a distance from the outer edge of the finished lens or the raw, uncut lens.

In another embodiment, glitter is arranged in defined patterns within or along the lens.

In yet another embodiment of the present invention, a one-way mirror layer is fixed to the back surface of the lens. Fixing a one-way mirror layer to the back of the glittered eyeglass lens further enhanced the aesthetic properties of the glitter dispersed throughout or along the lens.

DESCRIPTION OF THE DRAWINGS

FIGURE 1 is a front view of the preferred embodiment of the present invention.

FIGURE 2 shows the lens in FIG. 1 with a one-way mirror layer fixed to the back of the lens.

FIGURE 3 is a front view of a lens similar to that shown in FIG. 1 with glitter dispersed throughout the outer circumference of the lens only.

FIGURE 4 is a front view of a lens similar to that shown in FIG. 1 with glitter dispersed only in a distinct pattern along the lens.

FIGURES 5 and 6 are front and side views, respectively, of eyewear having forward and side lenses using the glitter effect shown in FIGS. 1-4.

DETAILED DESCRIPTION

As is described in greater detail below, eyewear lens are embedded with glitter, which is represented in the drawing figures by stippling and may be any

color or combination of colors. While it is preferable that the glitter have reflective properties, the glitter may also comprise any opaque material.

Referring to Fig. 1, a plastic eyeglass lens in accordance with the present invention is referred to generally by the reference numeral **5**. The uncut
5 eyeglass lens **5** has a front **6** and a back **7** which are formed in a generally elliptical shape. The lens **5** has a peripheral edge **8**, a central portion **9** and an intermediate portion **10** between the peripheral edge **8** and the central portion **9**. It will of course be understood that the lens **5** is shaped to be later incorporated into eyewear frames. A projection **12** having a proximal
10 attachment to the lens **5** and a distal end **14** provide means for handling the lens **5** during the manufacturing process.

In accordance with the present invention, glitter **11** is dispersed in the lens **5** during the manufacturing process. The particular manner in which the glitter **11** is embedded in the lens **5** is not critical. Suitable methods are
15 described in U.S. Patent 6,013,222 to Douglas et al. , U.S. Patent 6,338,558 to Kita and U.S. Patent 6,465,102 to Honigfort, et al., all of which are incorporated here by reference.

As is shown in Fig. 1, the glitter **11** may be dispersed throughout the central and intermediate portions **9**, **10**, preferably in a density which will not
20 interfere with the eyesight of a person wearing eyeglasses having the glitter dispersed in the lens **5**.

A second embodiment of the present invention is shown in Fig. 2, where a lens **25** is depicted with the same elements as the lens **5** shown in Fig. 1 (that is, a back **6**, front **7**, peripheral edge **8**, central portion **9** and intermediate portion **10**). In this embodiment, the lens **25** incorporates a one-way mirror layer **15** on the back **7** of the lens. Glitter **11** is then dispersed either throughout the lens **25**, along the front **6**, along the back **7**, within or along the central portion **9** within or along the intermediate portion **10** or any combination of these.

A third embodiment of the present invention is shown in Fig. 3, where lens **35** is depicted with the glitter **11** dispersed only within or along the intermediate portion **10** of the lens.

Yet another embodiment of the present invention is shown in Fig. 4, where lens **45** has glitter **11** dispersed in a decorative pattern extending from the peripheral edge **8** across a part of the intermediate portion **10** and the central portion **9**. It will of course be appreciated that the decorative pattern **18** may take any of an unlimited number of forms.

The manner in which the lens **5**, **25**, **35** and **45** of Figs. 1-4 are utilized in eyewear will now be described with reference to Figs. 5 and 6 which illustrate a pair of sunglasses **50** having a lens frame **52** with a pair of lens **55** in accordance with this invention, a pair of side frames **54**, each with a side lens **58** and a pair of temples **56**. In this embodiment, the lens **55** are tinted to

serve as sunglasses. While the lens **55** may have glitter dispersed uniformly through the lens or only in the central portion **9** or intermediate portion **10**, in the particular embodiment shown in Figs. 5 and 6, the glitter is formed as a message across the top of the lens, and are coordinated so that a portion of the message is on one (right) lens and the remaining portion of the message is on the other (left) lens, using glitter **11**. A dispersement of glitter **11** either uniformly, proportionally or as a message may be made in the side lens **58** of the side frame **54**, even without the use of glitter in the front lens **55**.

It will of course be appreciated by those skilled in the art that various modifications may be made in the design of the glittered eyewear described above without departing from the spirit and scope of the present invention. By way of example, the glitter **11** may be applied by a lens using an applique strip fitted to the front **6** or back **7** of the lens.